ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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PAT QUINN, GOVERNOR JOHN J. KIM, INTERIM DIRECTOR

Rockford Region Agricultural Field Investigation Report

File: Holland Dairy

County: Jo Daviess

Date: May 17, 2012

Address: 2547 E. Roberts Road
Apple River, IL 61001

Phone: Exemption 6 and Exemption 7(C)

Receiving Stream: West Fork Apple River

Persons Interviewed: Bill Holland

Inspectors: Kirk W. Bergstrom

Weather: 65°F, sunny

BACKGROUND

On the above date, an inspection was made of the dairy facility. IEPA records do not indicate that a previous visit was performed.

Biosecurity measures were discussed with Mr. Holland, and disposable boots were worn during the visit. The inspection started at 9:50 AM with a meeting at the dairy office. Inspections of the dairy and related waste handling facilities were followed by an inspection of the Watson Road heifer facility.

OBSERVATIONS

Dairy – 2547 E. Roberts Road

The dairy has two freestall barns for 270 milking cows. Chopped straw bedding is used atop mattresses in the freestalls.

While groups of cows are in the milking parlor or holding area, alleys are scraped to the push-off ramps and concrete apron on the north side of the 2 MG lagoon. Freestall barn roof gutters discharge to the 2 MG lagoon.

The double-six herringbone milking parlor is at the southwest corner of the freestall barns. Cooling water is reused as drinking water. Also, a pump transfers some parlor wastewater to a

storage tank for reuse as parlor washwater. All other wastewater discharges via a PVC pipe to the northwest corner of the 2 MG lagoon.

Loose housing between the freestall barns and the old stanchion barn is used for cows about to give birth. Runoff from the small lot flows through the alley between the freestall barns to the 2 MG lagoon.

Calf hutches and a calf barn house approximately 60 calves. Solid waste is periodically scraped and land applied. During the inspection, a temporary stack was located on the northwest berm of the 2 MG lagoon. Wastewater from the milk pasteurizing system in the calf barn flows to the west end of the 2 MG lagoon.

A small earthen feedlot is located on the east side of the freestall barns for approximately six show animals. Runoff from this lot flows in a vegetated swale around the east side of the 2 MG lagoon to a detention pond.

The 2 MG lagoon provides approximately 6 months storage for the liquid waste. A semi-solid crust was at the surface, and approximately four feet of freeboard was available. Lagoon berms are vegetated with no shrubs or trees, and no evidence of burrowing animals was observed.

The bunker silos store corn silage, haylage, and outlage. Wet distillers grains are stockpiled on the concrete bunker apron. Ag bags store high moisture corn. Hay and straw that will be chopped for bedding is stored in a barn on the north side of the facility. Runoff and leachate from the feed storage area flows to several inlets in the bunker apron and gravel driveway and then flows to the detention pond southeast of the 2 MG lagoon. In addition, runoff from the feedlot for the show animals flows around the 2 MG lagoon to the detention pond. In Spring and Fall, wastewater is pumped from the detention pond to the 2 MG storage lagoon for land application. The berms were vegetated with no signs of burrowing animals.

A Nutrient Management Plan was available for review during the inspection. The NMP includes a basic emergency plan. A current manure analysis was available for review during the inspection. Soil test results were reviewed, and it was noted that some individual phosphorus tests in fields adjacent to the dairy exceeded 300 lb/acre, but field averages were less than 300. Mr. Holland reported that he works with Pearl City Elevator to determine the field application rates. Liquid waste production is approximately 4 MG. In the Spring of 2012, a custom applicator land applied liquid waste by dragline injection to 77 acres of adjoining cropfields. The land application rate is 10-15,000 gal/acre based on the crops and soil analysis. Cropfields are approximately 350 acres hay and 450 acres of row crops. The Hollands have a 300 bushel slinger, and solid and semi-solid waste is land applied twice annually and is normally incorporated within 24 hours.

An unnamed tributary to the West Fork Apple River is located 500 feet east of the dairy complex. A grass waterway is on the south side of the lagoon and leads to the unnamed tributary. No evidence of discharges was observed.

Heifer Facility – Watson Road

This site is approximately 1 mile southwest of the dairy complex. 150 heifers are housed in the barn and attached feedlots, in a concrete feedlot, and in an earthen pasture.

The main heifer barn has outside feedlots. The barn has eave gutters and downspouts to direct runoff away from the feedlots. The downspout on the west end of the barn was in need of repair. Runoff from the lots flows to a detention pond. However, runoff from the west end of the barn and feedlots is not completely contained and may flow to a grass waterway that bypasses the detention pond. No evidence of a livestock wastewater discharge was observed during the inspection. Wastewater in the detention pond is periodically injected to surrounding cropfields by a custom applicator.

A concrete feedlot and an earthen feedlot/pasture are also used to house the heifers. Runoff from portions of the concrete feedlot flows to the detention pond south of the heifer barn.

The feedlot/earthen pasture slopes toward a cropfield to the east of the facility. A vegetated berm along the east side of the pasture captures the majority of the runoff from the pasture. However, runoff from the southeast portion of the denuded pasture flows to a cropfield and waterway that leads approximately 500 feet to the West Fork Apple River.

Mortalities are composted at the heifer facility. Cornstalks and chipped wood are used as the carbon source. Piles are located on the concrete pad within the concrete feedlot. Leachate was observed around the pile, but no runoff from the site was observed.

Mr. Holland reported that 30 dry cows are housed on a rented pasture at a site near Scales Mound and that 150 steers are at a facility on North Scales Mound Road. Manure is reportedly managed separately for these facilities. These sites were not visited during the inspection.

FINDINGS and CONCLUSIONS

An exit interview was performed. Based on the observations during this inspection, an NPDES permit is not required. The following items/concerns were reviewed:

1. Runoff from the west end of the feedlots at the heifer facility is not adequately directed to the detention pond and may flow to the grass waterway to the west. It is recommended that berms or curbing be constructed to ensure that runoff from the feedlots flows to the detention pond. It is recommended that the feedlot area be scraped and cleaned regularly to remove manure and waste feed. In addition, it is recommended that the eave gutter downspout at the west end of the barn be repaired to direct clean water away from this area.

2. Runoff from the denuded earthen pasture on the east side of the heifer facility is partially contained by a vegetated berm along the cropfield. However, runoff at the southeast corner of the pasture enters the cropfield and may flow to a grass waterway that leads to the West Fork Apple River. In order to control runoff it is recommended that the berm be extended and that vegetation be maintained.

No violations or concerns were noted at the main dairy complex on East Roberts Road. The inspection concluded at 12:40 PM.

Kirk W. Bergstrom, Engineer

KWB:svf

Attachments: Maps
Photos
Livestock Facility Inspection Checklist

cc: DWPC/FOS and Records Unit
WPC Sect Mgr/B. Yurdin
Rockford Region